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Art. I.—*On the Culture of the Tulip.* By W. J. P.

As I emerged from the dawn of my admiration of flowers, the Tulip formed a prominent feature, and each successive bloom strengthened and confirmed my devotion to the cultivation of that lovely flower, not forgetting or neglecting the Carnation, Pink, Ranunculus, Auricula, &c., which may justly rank among the "beauties of the creation."

Numerous inquires having been made upon the subject, I am induced to make the following detailed observations on its culture, conceiving that it may be instructive and acceptable to those who ardently admire the flower, — are doubtlessly wholly or nearly unacquainted with the general treatment and nature of the plant, and are desirous of obtaining information on the subject.

Soil.—The standard of soil for the Tulip should indisputably be a strong, rich yellow loam, laid open and exposed, previous to using, to the action of sun and air, for at least one winter and one summer, turned over every few weeks, by which means it becomes thoroughly decomposed and divested of all acrid and rank qualities, and in a state congenial to the natural order of the vegetation of the plant.

Manure.—There is upon this point some little difference of opinion, even amongst the oldest and most scientfic growers of the present day ; but it is, I believe, admitted by a very considerable majority of the most inveterate fanciers, that the intermixture of manure upon the undermentioned principle is decidedly beneficial, and is acted upon with the utmost success. It should be equal proportions of horse and cow dung, laid up in a heap for at least eighteen months,

turned about once a month, but in frosty weather more frequently, in order to allow the frost well to penetrate it, as it must not on any account be applied to the Tulip bed until it has become completely pulverised, and formed positively into a substance as fine as mould, when it is entirely freed from every pernicious or injurious property, and the existence of insects is nearly or wholly annihilated. Then the application of one-third part of such manure to two-third parts of loam as above described, will — I speak from the most certain results of experience and adoption — be found highly beneficial in producing a fine full green foliage, a strong upright stem, and a vigorous and perfect bloom.

The Bed — should be about 4 feet wide, of a length proportionate to the quantity required to be planted, varying from 12 to 15 feet in length, planting seven in a row, the outer root to be about 3 inches from the edge. The box, as it is termed, to be composed of strong wood, not less than one inch and a quarter thick, and raised 10 or 12 inches from the surface of the ground, below which the soil should be completely removed for at least one foot, filling up about one-half of the space so dug out with some rather large cinder ashes, or clinkers, or brick rubbish, or any substance which will not adhere closely, in order to admit of a good drainage under the bed; then over that fill up the remaining space upon a level with the regular surface, or bottom edge of the boarding or box of the bed, with a good dry mellow loam, which has been exposed some months to the air; and then proceed to fill the box with the composition above described, it being first well mixed and united together, to within about an inch of the edge on each side, and raised gradually from each side towards the centre, so that the middle row will be some inches higher in the ground than the outside rows, although planted the same depth, being careful to plant the largest and tallest growing roots in the centre, and the next size in proportion in each of the other three rows, the smallest or shortest being outside. Round my bed, when thus arranged, I put a neat, lightly constructed, open green fence, made of one foot single laths, not too close together, and painted green, so that it stands just one foot high above the upper edge of the box of the bed, gives a neat, finished and ornamental appearance to the bed, and forms a material protection to the growth and bloom of the plants. When the Tulip stage is then erected over, and properly covered in the blooming season, the bed assumes a regular and handsome appearance, and forms no inconsiderable scene of attraction.

Planting. — The time to be selected for this purpose is from the latter end of October to about the 12th of November, choosing during that period the most open, dry weather, as that description of soil which is used for the growth of the Tulip cannot be disturbed with facility except when at least moderately, if not nearly dry; independent of which, it must be found more inconvenient to plant (as very many persons do) a bed of several hundred roots in wet, heavy weather. I judge it, therefore, of much advantage to avail myself of the earliest time above stated, if the weather be fine.

Dibble, or Dibber, as it is termed. — The best that I have ever seen or heard of is one which several friends and myself make use of, which is made of block tin, about 6 inches in depth, 3 inches in diameter across the top, narrowing to the bottom to about 2 inches, with a mark or piece of solder outside 4 inches upwards from the bottom. This has a strong handle projecting over the top, sufficiently circular and large to be convenient to the hand, and each extremity soldered well on the outside, near the top or upper rim of the dibble. The material advantage derivable from this dibble is at once explained and easily and quickly comprehended, inasmuch as by this method the bed (being well settled and prepared for planting, and marked out for the number of rows intended) is not at all compressed and disturbed, because by gently pressing and turning this dibble round until the mark above described reaches the surface of the bed, every hole is made the precise and equal depth (4 inches) throughout the bed, sufficiently large at top to admit of the hand to place the root regularly at the bottom; the dibble, as described, being smaller at bottom than top, retains the earth, which is quickly turned out into large garden pots, or on a bed or border close at hand; and then afterwards the roots, when in, can be covered, and the holes filled with the same soil as was taken out, raking the bed over lightly and regularly with a fine rake or spade, to settle the earth firmly and properly. This is, by all who have seen and used it, admitted to be the most perfect and convenient system. It is also an additional advantage to dib the holes a week previous to planting, by which means the soil is well exposed and sweetened, and the bulbs are afterwards less liable to the attack of insects. Previous to putting in the roots, it is a great advantage, and universally adopted by those initiated in the treatment of Tulips, to put a table-spoonful of "sharp sand" in the hole. This is the surest preventive of the attack of the earthworm, or any insect whatever, and preserves many a sickly or damaged bulb from rotting.

From the time the Tulip is planted until the latter end of March or beginning of April, little or no attention is required, where the bed is constructed on the principle above described ; but at that time, as the buds advance in growth, they are more or less susceptible of injury from frost and particularly a superabundance of wet. With a bed of choice Tulips, then, it is highly advisable, if not indispensable that a temporary awning or covering, by means of large hoops and canvas, should be thrown occasionally over the bed, to protect it, as much as practicable, from heavy rains, hail-storms, sharp cutting north-easterly, &c. winds, and the chance of sharp frosty nights, which not unfreqnently occur at this season. There are many beds, however, in which the choicest varieties are cultivated, that have no such temporary protection afforded them ; but by being properly raised and drained as above described, the root is kept in a vigorous, healthy state, and the buds sustain in general but little injury from such mischances.

Bloom. — In the beginning of May, when the buds become sufficiently matured, and begin to display their various stripes and tints, it is time to prepare to place the upper or main awning over the bed, which on a regular stage is so constructed as to admit of being drawn up at pleasure by means of a roller with pulleys on each slope, so that sun and air can be admitted or excluded as occasion requires, without which convenience the bloom can never be retained so long or in so much perfection, observing always to give the advantage, if possible, of very early morning sun, until the flowers are all in full bloom, and by all means the refreshing air after sunset, if not too cold; but the flowers to be wholly protected from the weather, and particularly the operation of the sun and wind, with those exceptions. If the season has been dry, and the weather be hot, the plants when in full bloom, will probably exhibit symptoms of drooping ; it will then be necessary to apply water moderately and cautiously between the rows, by means of a fine rose watering pot.

When the bloom is completely over, let the covering be wholly removed, be the weather what it may, and the plants fully exposed. When the foliage and stem have become sufficiently brown and withered, which will be about the 25th of June, by which time the root matures and becomes in a state of rest, take up the roots cautiously with a rounded trowel, strong, being careful not to touch or cut the bulbs ; separate the largest offsets, and place them in a dry room or shed, where the air has free access constantly, but totally away from

the effects of sun or fire. When the bulbs are dry and hardened, (say in about a week or ten days,) place them carefully away until the time of replanting.

The method adopted by many famous Tulip bloomers, who have many hundred named roots to take care of, is to have shallow boxes or drawers, with divisions or partitions in each, only large enough to hold one root in each; they contain seven holes or divisions from front to back, and may be made any width that is fancied. These rows are numbered from one progressively, by which means the roots are placed in them in that order as they are taken from the Tulip bed. The Tulips are of course planted in the precise order in which they are arranged and written down by name in the Tulip book, and if any mistake or error is discovered in the course of the bloom, the book is then corrected. So the roots are taken np and disposed in these boxes, by which means the book and the boxes agree as to order, and any alteration or variation of roots for the subsequent planting can be made at pleasure.

But as this, though a most superior and convenient plan, may be found objectionable on the ground of expense and trouble at first (as these boxes or drawers should, to be complete, be fitted into a case or frame, after the manner of a chest of drawers, with open ribbed sides and back, and kept in an airy, dry room, away from sun, and where little or no fire is kept,) the best method that I am aware of, in the absence of some such convenience is to put the roots singly in what is termed technically "small hand" paper, one root only in a piece of paper, one root only in a piece of paper, with the name of the Tulip written on it. This is the best paper that can be procured for the purpose, being soft and pliable, and not liable to injure the shoots of the bulbs previous to planting.

Offsets — Should be planted about three weeks earlier than the parent bulbs, and tolerably close in proportion to their size, with a layer of sharp sand under them, and covered about two inches with fine sifted soil.

The whole body of soil for the main bed should be first passed through a screen or coarse sieve.

I have never known or heard of Tulips treated somewhat upon the above principle, with reasonable attention that ever suffered to any material extent from insects or weather.—*Floricultural Cabinet.*

Art. II.—*On the Propagation of Annuals, &c. by Cuttings.*

By the Author of the "Domestic Gardener's Manual," C. M. H. S.

An annual plant is supposed by most persons to produce its flowers and fruit (the seeds), and then to perish; and it is treated accordingly. The seeds are usually sown in the borders during the months of March or April, and nine-tenths of the young plants perish by grubs and worms, or by the acerbity of the ever-varying season. They who have the good fortune to possess some erection where a little extra heat can be furnished, frequently produce early plants; and these are placed in their allotted situations by transplanting, and thus fulfil the original intentions of the gardener. Things must remain pretty much as they have always existed; and as long as underground enemies continue to live and propagate, we must be content to submit to losses and vexations. There is a way, however, of counterplotting the attacks of every common enemy, by striking, during the months of September and October, such choice annual plants as it is desirable to preserve throughout the winter, and to retain for the production of seed or of cuttings very early in the ensuing summer. I have proved that Balsams can be struck in the autumn, and be made to flower in a short time; the cuttings may be taken off any joint just below the leaves, and of any length; they strike almost immediately in common soil. Balsams, however, can scarcely be retained during the winter, owing to the absence of light. Schizanthus will strike by cuttings six inches long, and flower. I have one by me now, that I caused to take root in August, in loam and sandy peat, without the aid of a glass; it produced bloom in October and November, but *failing to bear seeds*, it remains a stout and healthy plant, with two branches. Clarkia can be struck and preserved, so can Calliopsis (late Coreopsis) of several species. I mention a few only of the many beautiful annuals that can thus be preserved, even in a well protected cold frame of turf, with a good glazed light. The object is not one perhaps of much importance; and the subjects themselves do not appear very ornamental during the dead months, but they *may* prove very useful even to the gardener; and to ladies, and to young people of taste, the practice of raising, or of trying to raise, plants by this process, a fund of rational entertainment and some instruction, may be procured. Of biennial and herbaceous subjects, such as Calceolaria integrifolia, angustifolia, rugosa, — Salvia of many kinds, Wallflowers, some Stocks, &c. &c., numbers may be struck, and kept in health for

early transplantation. A cold frame, a green-house, or even a sitting-room window, will afford to many plants ample protection, which would all be lost unless they were annually renewed by seeds.

The soil for such cuttings may, in general, be good border earth, or maiden loam and decayed vegetable matter blended in nearly equal proportions. If single plants be raised, a small pot should be filled thus, above a good stratum of drainage, and then a hole being made two inches deep in the centre of the mould, with a round stick, silver sand, to the depth of half an inch, is to be poured into the hole; upon this, place the base of the cutting, keep it in the middle of the hole, and fill that up with the same sand; shade the plants till they appear to have adapted themselves to their situation, and stand firm and erect, or cover them with small glasses. In raising a stock of plants, Mr Mearns' method may be tried. Put the soil into a broad and rather deep pot, so deep only that the cuttings, when planted, shall not quite reach its rim; then make as many holes as there are cuttings — apply sand as above directed, and finally cover the top of the pot with a suitable piece of flat glass. A gentle sprinkling may at first be given over the surface of the soil, and this should be kept rather moist, but not wet; air ought to be freely given when the plants appear firm. As the roots emerge, they readily reach *the soil*, which circumstance I think is more conducive to their safety, than the removal would be from a bed of pure sand into separate pots of soil. If these few loose hints — for such only they are, — lead to any inquiry, I shall be happy to furnish every kind of information within my power.—*Floricultural Cabinet.*

ART. III.—*Notice of Vallota Purpurea. With some Remarks on the General Cultivation of the Amaryllideæ.* Communicated by XIOPE.

PERHAPS no genus of plants affords to the botanist and the florist, a more splendid group of favorite individuals, than the old Linnæan Amaryllis, which in later times has been so properly and remarkably subdivided into a great many distinct genera. Whether we glance at the antiquated *Narcissus pseudo narcissus plenus*, with its monstrous and distended yellow petals, which with a daring hardihood expands even from beneath the snow under some warm exposure, in

some old fashion garden, a fit companion to the venerated pæony; or stop to admire the poet's narcissus of purest white and with "crimson tipped" nectary, or pass hastily by these humble individuals to gaze with unfeigned admiration on the gorgeous display from tropical species, — now struck with the unique beauty of *Neria radiata*, the elegance of *Amaryllis belladonna*, the magnificence of the Brunovigiæ, the singularity of the Hæmanthi, the grandeur of Crinum in its species, *amabile;* or tired with these, recur to the few species of our own country, pleased with the pretty Zephyranthes *stamasco*, (the flower of the west wind) or with the purity of the fine Pancratium rotatum, both of the South: — from the early nodding snow drop (Galanthus) and its sister, the later summer snow flake (Leucopium) of the garden, to those more tender and costly varieties which floriculture has produced in almost endless profusion, there is the same feeling of delightful interest manifested in their singularly beautiful economy. The "lilies of the field" convey to our minds pleasing emotions. They are clothed with that magnificence and beauty which nothing can exceed. Generally inhabitants of the tropics, they serve a great end in adding to the floral luxuriance of nature, which is then especially displayed. Thriving according to their habits in almost every species of soil, they adorn the rich humid shades of almost impenetrable forests, or the dry arid waste.

Agreeable to a correct and praiseworthy taste for the riches of Flora, the introduction of some of the finest Amaryllideæ, into our private greenhouses and conservatories in this vicinity is becoming quite prevalent. Rare and noble species are now thriving with that success, which evinces a thorough knowledge of their worth and method of cultivation. Though we do not expect to create a thorough reform in the taste of our floricultural friends, nor were it even possible would we, at least to the extent of our own, yet we could wish to see more *real species* and less created *varieties*, and a still greater number of *genera*. Thus *Nerine sarniensis* is by no means so common as it should be, and as its real beauty recommends its adoption; the Hæmanthi are comparatively scarce plants; *Leucopium vernale* and *autumnale* are seldom seen; — while the gaudy and vivid varieties which Colville and other eminent cultivators have introduced into fashionable notice, are better known than the more solid and attractive original species from which they sprung.

A beautiful and very easily cultivated species is the rather common *Vallota purpurea*, herb. Its specific is a poor description of its real

color; not an unusual circumstance in descriptive botany. Instead of *purple* it is rather reddish scarlet. Surmounting a long scape, are usually five or six large upright flowers, which expand nearly at the same time, and are of long continuance. We know of no Amaryllis so easily grown and flowered as this, not excepting the incomporable A. formossissima. If kept perfectly dry during the winter, its season of rest, and watered profusely when in a state of growth, it will reward the cultivator with a rich display of flowers. The best soil is a light and good compost of rotten leaves and sand. From its ease of cultivation it recommends itself to indoor and parlor growth, where the greenhouse is not convenieut. Judging from the strength and vigor of the development of its leaves, it is not unlikely that in a stove and furnished with constant moisture, an uninterrupted display of flowers might be produced. This is the case with several of the Amaryllideæ, a mode of practice, however, not much admired, we suspect, by some of our best gardeners; and when applied to other less vigorous kinds of the plants, must, in the end, prove highly detrimental.

Art. IV.—*On Watering Plants.*

If you fear dry weather, do not defer too long before you water, but do it gently before the earth is too dry, consideration being had to the depth of your roots, and those that are deepest water most; and when you begin to water continue it as long as you find occasion.

Use not well water, for tender plants, for it is so strained through the earth or rather barren sands or rocks, and for want of the sun so chill and cold, that having no nourishment, rather the contrary, doth more hurt than good; Rivers that run quick and long on sharp gravel are little better, but if you are forced to use such, let it stand some time in tubs in the sun mixed with dung.

Let the quantity and quality of the dung mixed with the water, be according to the nature of your plants; if your plants be great growers and require heat, then put horse dung in your water; if your water be bad then put dung in to help it; let it stand in the sun and open air uncovered: if your plants be fine and tender, then put sheep or cow's dung, deer or asses' dung into the water; the worse the ground and more barren be sure to put in the more dung. Take

care you water no plants with standing stinking ditch water, nor no water that stinketh; for sweet water, (not too clear) and fresh mould (not musty or tainted by stinking weeds) is as proper for tender plants as sweet and good food, warm and clean lodging for tender and fine bred persons.

Rain water is very good if not too long kept, but if your vessel be large, the oftener you stir it the longer it will keep sweet.

Large and navigable rivers, that receive much soil by washing streets and the many sinks that run into it, and which by its own motion doth cleanse itself from that which is noxious, both to man and plants, is an excellent water for all sorts of plants.

The larger the ponds be, the better the water is for plants, the opener to the sun the better, the more motion they have, by horses washing in them, or geese and ducks swimming, 'tis so much the better.

Water all seeds with the smallest or rain like drops you can, and not too much at a time or too fiercely, lest you uncover them.

For flowers and plants whose leaves lie on the ground, water them at some distance, by making a hollow circle about the plant and pouring water into it, by which means you avoid annoying the leaves by discoloring water, or chilling the roots by too sudden coldness.

Use not any liquors, for watering either naturally hot as spirits, or artificially made so by heating over the fire.

In summer time or all warm seasons, the evening is best for watering, because the water will have time to sink into the earth, and the plant attracts it, before the sun's heat exhales it; but in winter or cold weather the morning is the proper time, that the superfluous moisture may be evaporated ere the cold night overtake you, and chill perhaps kill a tender plant.

A plant that delights in moisture, or a drooping plant that you think water will preserve may be watered by filtration, *i. e.* set an earthen or wooden vessel on a brick full of water near your plant, that all water may be higher than the earth; wet a thick woollen list, put one end with a stone or bit of lead to it into the water, that it may keep to the bottom; lay the other end on the ground near the root of the plant, and the water will distil out of the bowl or pot through the list, because that part of it out of the pot of water, hangs lower than that within, &c.

All sorts of fibrous roots are assured in their growth by convenient watering; but for bulbous and tuberous roots, the Gardener's hand ought to be more sparing.—*Gleanings from Old Authors*

In the above extract no mention is made of watering over the foliage. To newly removed plants it certainly is most beneficial, and very much promotes their growth. In smoky neighborhoods, watering or syringing over the leaves, in dry weather, cleanses them from soot and dust, and enables them to perform their proper functions with vigor. It must, however, be carefully borne in mind, that the *top* watering can only be safely performed when the sun has left the plants in the shade. The only plants that I am aware of that form an exception to this rule are the Chinese Chrysanthemums, the foliage of which is very much benefited by being watered in the blazing sun. In dry weather I always remove plants in the evening, and water them well overhead, and which I continue to do, at the same period, so long as appears necessary.

Art. V.—*Directions for the Flowering of Dutch Bulbs in Pots or Glasses.* By Mr Saml. Appleby, Florist, &c. Doncaster.

Hyacinths may be planted in pots from the latter end of October until December. The soil used should consist of about one-third of white or river sand, and the remaining two-thirds equal proportions of vegetable mould and loam. The pots should measure about six inches across the top. When the bulbs are planted, the pots are to be lightly filled with earth; then the bulb may be placed in the centre and pressed into the earth, so that it may be about half covered.—After this, the earth should be made solid all round the sides of the pot, to fasten the root. When the bulbs are thus potted, they should be removed into a cool place, in order that they may become well rooted before the tops shoot up. Much light is not necessary at this period; indeed, this deprivation of light causes them to root more quickly than they would otherwise do. For the first fortnight or three weeks after potting, they may be placed upon a shelf in a shed or a cellar, or in any other convenient place, providing it be cool.—Little water is also requisite; once watering, immediately after the roots are planted, being sufficient, if the situation is tolerably damp where the pots are placed.

If the stock of bulbous roots, such as Hyacinths, Narcissus, Early Tulips, &c., be large enough to occupy a small frame, the pots may be put within it after planting, and they may be covered a

few inches deep with rotten tan, or any other light material. The pots will soon become well filled with roots, and the shoots produced by bulbs previously well rooted will be stronger, and the flowers larger than if they had been put in a warm and light situation. When they are rooted, a few may be introduced occasionally into the room window or on the mantel-piece, if there be sufficient light. Light is quite essential when the tops begin to grow. By this means a succession of flowers may be had during the greater part of the spring.

If it is wished to bloom Hyacinths in water glasses, — the glasses should be filled up with water, but not so high as to come in contact with the bulb. Too much moisture before the roots protrude might cause the bulb to decay. The glasses may be put in a light, but cool situation, until the roots are grown half the length of the glass, at least. The longer the roots are before being forced into flower, the finer the flowers will be; and when rooted they may be kept warm or cool, as flowers are required in succession. The flowers will not put forth even when the glasses are filled with roots, if they are kept in a cold place. The water should be changed about twice every week, and rain or river water is better than spring water. Although the practice of growing bulbous roots in water is common, it is by no means preferable to growing them in earth. There are many failures when bulbs are grown in water, which are chiefly caused from their being more liable to rot before they begin to emit roots than when grown in soil. Keeping the bulbs quite clear of the water is a partial but only a partial preventive. Another cause is, that when the roots have attained some length they frequently decay, and the loss of the flowers is the consequence. Should success attend the growing and blooming of the greater part of those placed in water-glasses, the bulbs will be good for nothing afterwards, but those grown in pots might be planted the year following in the garden, and they would make pretty border flowers for several years.

Similar treatment to that now described is required for the large rooted Narcissus whether in pots or glasses.

To force early Tulips in pots, they should be placed about three or four in each pot, just within the earth, which may be of the same sort, and the management of the same as recommended for Hyacinths and Narcissus.

Crocuses will force well. They should be planted near together, say from ten to twenty in a pot, according to its size. Let them root naturally after planting, before they are forced into flower. They require similar treatment to the preceding.

In order that bulbous roots which have been forced shall not be quite exhausted, they may be planted in the garden with the ball of earth entire, as soon as the flowering is over, if the weather is favorable. They will thus mature their roots and leaves, and be strengthened sufficiently to bloom again the following season. If bulbs are neglected when their flowering season is over, they will not recover such neglect for a considerable time, but if carefully placed in the garden till their leaves became yellow, when the root will be matured, they may then be taken up and kept in a dry cool place until they are wanted the following season for planting. — *Cabinet.*

ART. VI.—*On Plants which are peculiarly adapted forplanting in Beds in Masses; each kind being showy and profuse in Flowering.* By FLORA.

[Continued from our last.]

Commelina cœlestis, Sky-blue Commelina. Triandria, Monogynia. Commelineæ. The splendid blue flowers of this plant cannot be excelled, and its profusion of blossoms renders it deserving of cultivation in every flower-garden. With me the plant blooms from the middle of June to October. The roots are tuberous, and keep well through winter, if taken up after the blooming season, and preserved like Dahlia roots. Plants from the old roots grow, in good soil, from three to five feet high; those from seeds reach only from one to two feet. The following is the mode of management I have practised for the last two seasons:—I fixed upon a circular bed, eight feet in diameter; and in the first week in May I planted four feet of the centre with the old roots, placing the crowns just under the surface of the soil. The outer portion of the bed I planted with *spring-sown* plants, that had been raised in pots placed in a frame. Both the roots and plants were planted about six inches apart. Thus the centre of the bed being much higher than the outer part, the appearance was that of a splendid blue cone of flowers, scarcely to be excelled in beauty. Seeds are produced in abundance, and may be obtained of seedsmen at a small cost.

Salvia angustifolia, Narrow-leaved Sage. Diandria, Monogynia. Lahiatæ. This very fine blue flowered Salvia is a most charming plant. The fine azure blue flowers are produced in profusion, and the plant not growing higher than from a foot to half a yard, renders

it a great favorite. It merits a place in every flower-garden. The plant is a herbaceous perennial, and increases by division, or by cuttings of the young shoots, taken off close to the old wood, and struck in heat they root freely. It is a native of Mexico, also of New Spain, growing in dry elevated situations. It thrives abundantly with me in the open border during summer. I plant it out at the end of April, in a bed of rich leaf mould and loam. It begins blooming in June, and continues to the end of the season. I then take up the plants, and preserve them in pots or boxes in the greenhouse, or cool frame through winter. A bed of this lovely plant, growing near the following named species, makes a very pleasing contrast.

Salvia Cardinalis, syn. S. splendens rubra, S. fulgens. Diandria, Monogynia. Labiatæ. This very splendid flowering Salvia was first raised in this country, in the garden of the Earl of Egremont, Petworth House, Sussex, from seed received from Brazil; and in consequence of its extreme beauty, free flowering, ease of propagation, and its hardy habit, few plants have spread more rapidly and extensively through the country than this. It is a most valuable addition to the ornamental plants of a flower garden, or pleasure ground, and will keep in bloom from June to November, or even later. The plant is readily increased by cuttings, taking off the young shoots, when about six inches long, cutting them off close to the mother branch; they will root very easily at any period of the year, by placing them in moist heat. The cuttings should be inserted as soon after being taken from the old plant as possible, for if kept out of water or soil a short time, they wither and do not often recover. The plan I pursue with this plant is as follows. Strong plants will usually grow about five feet high; I therefore select a bed of tolerable size, that will correspond with the height of the plant. Having done this, I take the old plants for the centre of the bed, and young plants struck either in autumn or early in spring, for the outer portion of it. These latter plants feather down close to the edge of the bed, which gives the whole a very striking appearance. The soil is composed of one half fresh turfy loam, well enriched, and in order to give this addition to the bed I remove some of the old soil. Fresh soil is very essential, as there will be a much greater profusion of flowers with it than otherwise, it amply repays for the extra trouble. At the end of the season, I take off a lot of cuttings, and strike them in a frame. The young plants at the side of the bed, I take up and place them closely together in large garden pots, or a box, leaving the plants about half

a yard, or two feet high; these I preserve in a cool frame, or if room, in a cold part of the greenhouse. I planted out a bed of this plant, and pegged them down, at the time of planting out early in May.—The points of the shoots took an erect position, and formed flowering spikes about a foot high. The bending of the stems checked the growth of the plants, and caused them to flower in so dwarf a manner. I adopted this method, in order to have the plant low enough to correspond with contiguous beds of dwarf plants, and it fully answered my expectation. I turned out some three or four years' old plants into the shrubbery border, and they made bushes of six feet high, and the same in diameter. These have stood the two last winters, in the open air, and bloom profusely each summer; but the spikes of flowers are not so luxuriant as are produced on the younger plants, which I use for the centre of the bed in the flower garden.

Verbena chamædrifolia, Germander-leaved. Synonym, V. Melindres, Scarlet-flowered Vervain. Didynamia, Angiospermia. Verbenacea. This plant is a native of Buenos Ayres, growing through a very extensive tract of that country. The dazzling, brilliant, scarlet flowers cannot be exceeded by any other plant yet introduced into this country. And blooming from April to November, in the open air with us, makes it one of the most desirable plants in cultivation. It is found to survive the two last winters in this country, but I fear will not be sufficiently hardy for a severe winter. It has been found diffiult of keeping through the winter, even protected in a pit greenhouse; I find that old plants taken up and potted, generally suffer from the operation and die; and that if runners are potted off into small pots, as late as October, they rarely survive the winter.—By the following method I have, however, succeeded admirably, both in cultivating and keeping it through the winter, both in doors and the open air. The plant required a fresh soil, well enriched with vegetable manure, or rotted hotbed dung. In the centre of a small flower garden, I had a pyramid of turfy loam and dung, raised six feet high; and at the end of April I planted it with the Verbena, one small plant every six inches, and gave them a good watering at the time, in order to settle the soil at the roots. The plants flourished amazingly, and throughout the summer I had a splendid scarlet pyramid. Very little water was ever required, even in the drought of the present summer I had them in full flower. Where there is an unsightly wall, and it is wished to conceal it, nothing could do this more pleasingly and effectually than throwing up a sloping bank of

soil, and planting the Verbena. From the success of my pyramid I am confident it would be a pleasing and striking object. In a flat bed of this plant, I find it does not flower very freely during summer, unless the bed have a substratum of drainage made of broken pots, stones, &c.; and it is impossible to keep it through a mild winter in the open air, without a good drainage, the cold damp of the soil destroying the tender roots. I find that the plants survive the open air on the sunny side of my pyramid remarkably well; and some plants which had grown on a rockwork also endured the winter without any injury whatever. From these circumstances, I am persuaded, it requires a dry situation for the roots through winter, and if this be attended to it will answer. With a small flat bed I had, I placed a willow hurdle, (an old hamper lid,) about six inches below the surface at the time of planting, and at the end of October, I took up the plants and soil entire upon the hurdle, and placed it in a cool part of my greenhouse, and it continued to flourish through winter. Early in March, I took off a considerable quantity of side shoots and rooted runners, potted them into small pots (60's,) and put them into a hotbed for a fortnight; they struck into the soil immediately, and furnished me with an abundant supply for planting out of doors in April. I tried to keep young plants through winter in small pots, but could not succeed with any that were taken off the old plant later than the last week in August.

Art. VII.—*Collections and Recollections.*

Effects of Heat and Moisture on Plants. — In the economy of bulbs and tubers, nature teaches a state of repose, and a preservation of vital energies as most conducive to future vigorous development, experienced in the cultivation of the tulip, the hyacinth, and many others. In the whole of vegetation, the important agencies of heat and moisture are well known; the former working chiefly by expanding, the latter floats the nutritious matter into the minutest ramifications. Thus, the end of a creeping rose-shoot introduced into a hot house, will grow several inches while not a bud moves on the plant outside. In its own more fervid climate, *Yucca gloriosa* displays its honors from the elevation of a stem: while in the open air in this country, the stem remains latent in a bulb. Thus, their conjoined

agencies may be traced in the revival of the fading blossoms of a nosegay, by the addition of a little hot water to that already in the glass. — *Rep. of Drummond's Ag. Museum*, 1834.

Anagallis Webbiana. — This plant never thrives if it be crowded amongst other plants. It is always better to strike young plants every year: the old ones seldom thrive more than a year. Cuttings taken off at three joints, and planted round the sides of a pot, and plunged in a gentle heat, will strike roots readily.

Plumiera Rubra. — This beautiful stove plant succeeds best in rich light loam, and requires but very little water at any time, but it must be kept very dry when not in a growing state, which will have a tendency to throw it into flower. It is propagated by cuttings, which should be laid to dry for a while, like those of Cacti, and afterwards either struck in tan, or planted in pots.

Effect of Iodine upon Germination. — A series of comparative experiments have been made by M. Canter upon the germination and vegetation of plants moistened with water, solution of chlorine, and solution of Idione, the latter of equal density. The following are his conclusions: 1st. Iodine is generally more effectual than chlorine in facilitating the germination of seeds; 2d. Iodine produces this effect by stimulating the germen of the seeds in the same manner as oxygen and chlorine; 3d. Iodine is absorbed by the growing plant, but its affinity for hydrogen and the power of vegetation is soon converted into hydriodic acid; 4th. The germination of seeds, which appear to have lost all vital powers, may frequently be excited by iodine. — *Rep. Pat. Invent.*

Planting Evergreens. — In planting evergreens in winter, a dull, calm day answers very well, but in autumn or spring, a moist rainy day is the best. Whether planting be done in a dull day, a wet day, or a dry day, it is very necessary to keep in view the expediency of keeping the plants for as short a time out of the ground as possible; if only a few minutes, so much the better: and in all cases when it can be done, where great numbers are to be planted, we should, if possible, have some men stationed to take up the plants, others to carry them, and a third set to put them into the ground. In all seasons, situations and soils the plants should be well soaked with water, as soon as the earth is put about the roots. — *M'Nab on Planting Evergreens.*

Spontaneous Movements of Plants. — In *Megaclinium fulcatum*, the labellum, which is connected very slightly with the columna, is almost continually in motion; in a species of *Pterostylis*, there is a kind of convulsive action of the labellum; the filaments of *Oscillatorias* are continually writhing like worms in pain; several other confervas exhibit spontaneous movements; but the most singular case of the kind is that of *Hedysarum gyrans*. This plant has ternate leaves; the terminal leaflet, which is larger than those at the side, does not move, except to sleep; but the lateral ones, especially in warm weather, are in continual motion, both day and night, even when the terminal leaflet is asleep. External stimuli produce no effect; the motions are very irregular, the leaflets rise or fall more or less quickly, and retain their position for uncertain periods. Cold water poured upon it stops the motion, but it is immediately renewed by warm vapor. — *Lindl. Bot.*

Cephalotus. — The most striking peculiarity of *Cephalotus* consists in the conversion of a portion of its radical leaves into ascidia or pitchers. But as ascidia in all cases are manifestly formed from or belong to leaves, and as the various parts of the flower in phænogamous plants are now generally regarded as modifications of the same organs, the question is naturally suggested, how far the form and arrangement of the parts of fructification agree in those plants whose leaves are capable of producing ascidia or pitchers. The four principal, and indeed the only genera in which pitchers occur, are *Nepenthes*, *Cephalotus*, *Saracenia* and *Dischidia*, and the few other somewhat analogous cases, consisting of the conversion of bracteæ or floral leaves into open cuculli, are found in *Marcgraavia*, and two other genera of the same natural family. The only thing common to all these plants is, that they are *Dicotyledonous*. It may also be remarked that in those genera in which the ascidia have an operculum (lid), namely, *Nepenthes*, *Cephalotus* and *Saracenia*, they exist in every known species of each genus, and the structure of those genera is so peculiar that they form three distinct natural families; while in *Dischidia*, whose pitchers are formed without operculæ, these organs are neither found in every species of the genus, nor in any other genus of the extensive natural order to which it belongs. — *Philosophical Journal.*

Floral Phenomenon. — At the green-house of Mr Wm. H. Gardner in this town, arranged among numerous members of the Cactus fam-

ily, is a fine specimen of the Grandiflora, or night-blooming Cereus This very curious plant, it is well known, is exceedingly economical in the production of its blossoms, and not less modest and coy in their exhibition. It rarely produces in the course of any one season, more than a single flower, never, we are told, more than two or three; and generally, after a season of unusual fecundity, it remains entirely barren during a period of three or four years. This infrequency of bloom has led some persons unacquainted with the respective plants, to confound it with the flowering Aloe or century plant, to which it has no manner of physical resemblance, and which is said to blossom but once in a hundred years. On the evening of the 21st inst. the only flower upon the specimen above mentioned began slowly to unfold; at midnight it was fully expanded; at five on the following morning it began to contract, and at seven had closed itself, never again to open. At the greatest dilation, it measured 21 inches in circumference, and 5 3-4 inches in depth; the calyx was a splendid gold color, and the petals perfectly white. It emitted a fragrance similar to the odor arising from the preparation called Turlington's balsam, with perhaps a somewhat sweeter scent. The appearance of so rich and beautiful a flower, springing without a leaf of any description, directly from a naked, thorny stalk, forbidding and almost hideous in its aspect and structure, is what constitutes a portion of the singularity of this unique vegetable; its property of blooming in the night is another peculiarity.

A reflective mind may gather sundry moral lessons, and profitable withal from the strange contrasts thus displayed, — how that objects both animate and animate, may sometimes exhibit the humblest, rudest, most unpromising exterior, and yet possess inherent qualities capable of ripening into glorious results: how that misfortune, infirmity, affliction, may eventuate in comparative prosperity and happiness — for

> "Sweet are the uses of Adversity,
> Which, like the toad, ugly and venomus,
> Bears yet a precious jewel in its head";—

how that those virtues which shun exposure to the broad glare of day, are most apt to command the world's admiration; and that the brightest deeds are often shrouded in voluntary obscurity — there being still on earth some glorious spirits, who

> "Do good by stealth, and blush to find it fame."

On the occasion just noticed, in common with many gratified visiters, we had an opportunity to observe the progress of the phenomenon, now occurring for the first time in this place; and would add that Mr G. is always happy to welcome his friends, to a view of his extensive collection of floral rarities, his garden and grounds being accessible at all times.—*Nantucket Inq.*

Art. VIII. — *Horticulture in Maine.*

We are always pleased with the progress of Horticulture, in whatever section of the country it may appear. It gives sure evidence of a correspondent improvement and refinement of taste in the individual or community who cherish and cultivate this interesting pursuit.—As we have recently visited the cities and some of the flourishing villages of Maine, we present to our readers a few hasty sketches of what fell under our observation, and more particularly struck our attention.

The approach to the city of Portland by water, is highly picturesque and beautiful. Nature has done everything for the place. Its situation on a promontory is well known. Its appearance as we pass the fort, is perhaps equal in beauty, to any other city in the Union.

Nor are our expectations disappointed as we perambulate its streets; many of them are profusely adorned with shade trees, which appear to be an object of some importance to the inhabitants if we may judge from the number that have been put out within a few years. — Attached to many of the residences, are neat gardens, though not extensive; some of them we had the pleasure of visiting.

The garden of M. P. Sawyer, Esq. contains the only green-house of any note in the city or vicinity. This we visited, and found Mr Milne, who has charge of it, a man well skilled in his profession, and an ardent admirer of flowers. There are two houses upon it.—The first a cold house for peaches and grapes, fiftythree feet long. The trees and vines were planted in it about the 20th June, 1835. The peach and some other trees are trained to the wall in a fine manner, and will probably produce fruit another season. The vines were in a highly healthy and luxuriant state, and though they were so recently planted, yet they were loaded with fruit, mostly the Sweetwater and Chasselas. Mr Milne states that he had made liberal use of liquid manure, applied to the roots.

The other building is a common green-house or conservatory, fifty feet long, devoted in part to grapes. We saw here in abundance, large rich clusters of the Black Hamburg, St Peters and other varieties; also a choice collection of green-house plants including a few measllias.

Very thrifty Isabella and Sweet-water grapes covered the garden, laden with fruit, but so unpropitious is the season that to all appearances very little of it will ripen.

In the garden are about fifty varieties of the finest pears, many of them in bearing state; also a good assortment of fine plums. We saw some fine gooseberries and bushes trained to a trellis. The climate is good for gooseberries and plums; but the peach is not successfully cultivated without protection, and is not often attempted.

The garden is finely laid out, with gravel walks and box edgings, and adorned with a profusion of flowers, among which were some good seedling dahlias in great perfection. Plants of *Lobelia cardinalis*, the most perfect specimens we have ever seen, enriched the collection of herbaceous plants. Mr Milne stated that he had raised a great abundance of melons in some decayed hotbeds we observed in a corner of the garden.

We visited another garden where preparations are making for the erection of a green-house of respectable dimension, to be completed this fall; at this place we saw some fine flowers, but not in great variety.

We were highly gratified with the opportunity we had to visit a lady's garden, which though a small one, was perfect in its kind, kept in fine order and displaying much taste in its enthusiastic proprietor. She has the greatest collection in a small space we have ever seen. Here were some fine dahlias; we recognised among them Dennisii, Widnall's Jason, Fulgida perfecta, and other fine varieties.

The Dahlia is as yet but little cultivated in this city; we occasionally see them of inferior sorts, decorating the courts and gardens of some of the houses, but there appears to be but few amateurs who possess the new and more popular varieties of this charming flower. From the eminences at the west and east ends of the city, there are some splendid views of the city, harbor and surrounding country. We noticed with pleasure, that most of the vicinity of Portland was highly decorated with numerous shade trees, in groves, groups, and single, which the good taste of the proprietors of the soil have spared

as yet. Near the city is an extensive, and one of the finest groves of oaks we have ever seen. There are some fine residences and well cultivated gardens about Portland, but as a general thing they are much below our expectations, and fall far short, in point of cultivation of the environs of our own city. With the exception of apples we saw but little fruit in Westbrook; horticulture appears to be rather in the back ground here, as well as in other towns about the city; but from small beginnings we witnessed in many places, we feel confident that it will assume that importance in the minds of the community that it deserves. The country from Portland to New Gloucester is not very interesting; there are, however, some fine orchards of apple. The premature frost which had taken place a few nights previous had cast a gloom upon everything, destroying upon low and level places corn, beans, vines, &c. The hills were in a great measure preserved from its destroying effects.

In New Gloucester there is a succession of fine orchards of thrifty apple trees, interspersed with a few plums and pears, and here and there an effort to raise a peach. Between this place and Danville we passed a large tract of land, where there had been a prodigious waste of timber and wood. For a number of miles, the land on either side of the road, was covered with huge logs, partly burned, lying in every direction, having the appearance of an attempt to cultivate a few years since, but abandoned and left to grow up to a thick brush-wood or second growth. In some places attempts were making to subdue, reclaim, and convert it into fruitful fields, and was undergoing the process of burning, piling logs, extracting stumps, &c.

To those who are accustomed to all the refinements and luxuries of modern horticulture the prospect is a cheerless one of converting nature's wilds into blooming gardens and luxuriant orchards. We saw in operation a stump extracter, an excellent instrument for raising and moving stumps. In a wild country they must be of great importance to the agriculturist. Where there is a scarcity of stones, stumps are much used for fences, and when properly laid, make not only a fence which man or beast cannot have much inclination to pass, but durable, and in our estimation not unpleasant to the sight.

Danville is situated on the Androscoggin river, opposite to Lewiston. Here is an immense water power, sufficient it is said for sixty large cotton mills, of Lowell dimensions. What a few years ago was a lonely wild, is now growing up into a lively flourishing village; the sound of the hammer is heard in every direction, giving evidence of its increasing prosperity, and importance. Amid all the bustle at-

tendant upon the rapid rise of a new village, it gave us pleasure that it does not engross the whole mind of some men, who are most deeply interested in the plan; but that some attention has been paid to the introduction of fine fruits. We were shown a fine collection of pears, cherry and plum trees from the Messrs Winship's nurseries, planted the present season, most of which were in a flourishing condition; also fifty rods or more of hawthorn hedge, planted at the same time. The pear when properly attended to in this country produces abundantly. We were told by a gentleman in this place that he had purchased in a neighboring town, St Michael pears at the low price of seventyfive cents per bushel. He further stated that this old and highly esteemed variety had not deteriorated as it has done in the vicinity of Boston — but was showing some symptoms of decay. We would recommend to the lovers of fine scenery the inspection of Lewiston falls, which when the river is not too low, forms an imposing and grand sight.

On the route from Lewiston to Augusta we passed many fine orchards, the trees bending with fruit. In no part of Massachusetts do we see a greater quantity of apples, than are to be found in this region, especially in the towns of Monmouth and Winthrop: the quality of them is not so good, a greater proportion being natural fruit. Very little attention appears to have been paid to the more delicious fruits. We saw a few fine looking pear trees, some plums, but no cherries. The only fruit in Augusta market of any consequence, was apples, and these not of the best quality. The country, for twenty miles west of the Kennebec river, is very fine. We passed numerous excellent farms, whose proprietors we should infer from outward appearance, are men of independence. The Ruta Baga is cultivated by many of the more thriving looking farmers, and better crops we never saw. The town of Winthrop is adorned with a number of large and beautiful ponds. We noticed that these ponds had protected the corn from the ravages of the frost. In one place in particular we observed that on the west side of a large pond, corn, potatoes, &c. were as green as ever, while on the opposite side, everything was seared. At first, this appeared unaccountable, until we learned that the wind on the night of the frost blew from the east.

Augusta, Hallowell and Gardiner are villages of importance, pleasantly situated on the Kennebec, and places of considerable business. Augusta, the seat of government, appears to be the most flourishing. Some taste is exhibited in many of the courts and gardens, and in

some we saw the Dahlia in perfection. There are no gardens of any great extent in the place.

The vegetable garden of Mr J. C. Steward, attracted our attention. He informed us his leisure hours only had been devoted to it, and while it has been a relaxation and source of pleasure, it has also afforded him considerable profit from the sale of early cucumbers and other productions, for which a ready market was found at the neighboring hotels. We were shown a few Isabella and Sweetwater grape vines, with fruit in good condition, and tomatoes trained to the garden fence; cabbages, and other vegetables very fine. We were pleased with the taste and industry of the proprietor, as exhibited in the perfect order and neatness of the garden — and we could wish that his example was more generally followed by our mechanics and tradesmen; we think it would conduce much to their health and comfort, should a few of the spare moments under the control of every one, be directed to the cultivation of the useful and ornamental in the few rods of ground they may have in possession. The hours spent in the garden seemed not to have interfered with his profession in his shop. We do not recollect of ever having seen a barber's shop neater or in better style; instead of the usual uncouth and vulgar prints which too often disfigure the walls, we found here a well selected assortment of maps, which to the traveller are much more interesting and profitable; and as to other accommodations we can only recommend the passing stranger to call and see for himself. Our stay was so short at Hallowell and Gardiner, that we had but little time for observation, and were somewhat disappointed in not being able to visit the garden and green-house of Robert H. Gardiner, Esq. of the latter plaee, who, we understand, takes the lead in horticulture in this vicinity.

We spent an hour at the dam now building across the Kennebec, half a mile above Augusta bridge, as the greatest curiosity of the place. On account of the severe drought, the present time is very favorable for its construction. It is said of the rivers generally in Maine, that they were never known to be so low as they are now. It was an interesting sight to look down from the high banks of the river upon the numerous workmen, to the number of six or seven hundred, on the dam and the bed of the river below. The banks of the river are faced up with solid masonry. The water is to be taken out on either side of the river in canals and carried down into the banks which will supply water power for a great number of mills.

Leaving Augusta on the east side of the river, the same fine country extends through Vassalborough and China as on the west side.—The crops of wheat, oats and barley have been abundant; in many places the wheat was still green.

Through the whole country, the substantials of life seem to be more attended to than ornament or the luxuries of horticulture.—There is not that attention paid to the appearance of fences about the dwellings, door yards, &c. as with us. A great destitution of shade and ornamental trees in villages, and about farm houses is too common. There seems to have been a war of extermination carried on among the trees in many sections of the country. In China, there is a beautiful pond seven or eight miles in length, which ought to be dignified with the title of lake. Its shores are mostly lined with well cultivated farms: it is enriched with islands and capes, and affords some fine scenery.

We noticed many fields of hops which are cultivated to much advantage in this town: the crop is middling, not so good as it has been for some years. From this place to Bangor agriculture is in its infancy, and horticulture for the most part in the germ. In Dixmont, there are some exceptions; we noticed in this pleasant village, excellent gardens, extensive young orchards, and other signs, indicating that horticulture was germinating at least.

Bangor has gone ahead at a rapid rate: the improvements made in the city within a few years have been very great. The impulse given to the place has not been entirely confined to business and speculation. We rejoice to see a few who are acting the part of benefactors to their country by encouraging horticulture, and showing the community that two spears of grass can be made to grow, where only one has heretofore. But manure at one dollar per cord, does not speak much in favor of great progress in the art, when so much land in the vicinity of the city needs it, and a ready market is found for all the products of the garden and field. Yet so it is; the best stable manure can be bought for that low price, and hay at twenty dollars per ton.

We were informed that a horticultural society was about to be formed in this city. Not only do we wish them success, but feel confident they will succeed, only let those who are interested, put hand to hand, and shoulder to shoulder and they will soon see that a combination of forces will be an effectual means of creating a taste for fine fruits and flowers, and of introducing a different state of feeling in relation to

the subject, from that which too generally exists, not only there, but in our whole country.

The most extensive and best garden we saw in this place, was that of Dr Barstow, two or three miles from the city, containing about six acres. Two acres of this was devoted to the cultivation of Ruta Baga, and a finer field we never saw. This gentleman informed us that he raised the last year at the rate of 900 bushels to the acre. The crop will probably exceed that the present season. His cabbages and many other vegetables were in great perfection. He had a brilliant display of annual flowers, some of rare sorts. His Dahlias have done rather poorly this year. Last season they flowered abundantly.

The erection of a green-house is contemplated this fall upon his grounds, which, in connexion with his garden and the Mount Hope cemetery contiguous, will form a point of attraction and place of resort for those who are fond of retiring from " the busy haunts of care." Mount Hope cemetery is in imitation of Mount Auburn, and was consecrated the present season. It contains thirteen acres mostly on a steep, conical hill, ornamented by nature with evergreen and other trees. The avenues and walks have been laid out under the direction of Dr Barstow and are either completed or in a state of forwardness. At the foot of the hill is a small run or brook, across which a dam has been built and a pond raised. Passing this by a neat bridge, we enter another lot of ten acres, which has been purchased by the city for a public burial ground, and the whole is about to be inclosed by a substantial fence in one piece. A sale of lots took place not long since, and if we remember right, from sixty to seventy lots were sold, the minimum price being twenty dollars per lot, and the amount of choice money arising from the sales exceed seventeen hundred dollars. Another sale is soon to take place, and it was anticipated the results would be equally successful. From the top of the hill, there is a fine view of Penobscot river near by, the surrounding country, and part of the city of Bangor.

There are many other small gardens, with an abundance of vegetables, ornamented with flowers; but no great attention appears as yet to have been paid to fruit. The only kind we saw exposed for sale in the mrrket was apples of an inferior sort.

We saw fine Dahlias in some of the gardens; they appear to succeed well in this climate.

J. B.

Art. IX. — *Massachusetts Horticultural Society.*

Saturday, Sept. 3, 1836.

EXHIBITION OF FRUITS.

The exhibition of fruits was very attractive and it was greatly indebted to the liberal contribution of Messrs C. & A. J. Downing of the Botanic Garden and Nurseries, Newburgh, N. Y.

By Hon. E. Vose, President of the Society — Early Red Juneating, Lady Haley's Nonsuch and Shropshirevine Apples — Corse's Nota Bena, Green Gage and Imperial or White Gage Plums.

By Judge Jackson, Brookline, several beautiful clusters of Black Prince, French Purple and Blanquette Grapes.

By Messrs C. & A. J. Downing, Newburgh, N. Y. — a seedling (from the Washington Plum) two inches in length and two and a half inches in diameter, of a pretty regular and oval form ; skin greenish yellow, speckled with minute light yellow dots. Flesh yellowish green, remarkably firm, juicy, high flavored and separate from the stone, which is long and much compressed. Ripe from the middle to the last of August. The committee have named this variety "Downing Seedling" Plum — also presented by the same, Red Gage, Purple Gage (supposed to be the Reine Claude Violet of the Pom. Mag.) Cruger's Seedling Scarlet Gage, Violet Perdrigon, Kirke's, and Flushing Gage (which appear to be the same as our Imperial Gage) Plums.

By Edward Cruft, Esq. Boston, a beautiful specimen of Bolmer's Washington Plum.

By Samuel Downer, Esq. — Williams' Favorite, River, Yellow or Amber Siberian Crab, large Siberian do., small Siberian do., Apples, all very fine, also an unnamed variety of Pears.

By R. Manning, Esq. — Orleans, Drap d'Or, (and a variety received as the) "Precoce d'Tours" Plums — also Bloodgood Pears, a good bearer, and is considered by one of the first Pomologists "to be the best of the season;" it is said to be new and a native of Long Island, N. Y.

By Mr C. Cowing, Roxbury — Williams' Favorite Apples.

By Capt. William Clapp, Dorchester — Clapp Pears, grown on the original tree, this kind greatly resembles the "old Catharine pear."

By Mr Samuel Phipps, a plum, the name of which is not ascertained.

By Mr James Leonard, Tauntou — English Red Cheek — the tree is healthy, vigorous and a great and constant bearer, but the fruit, except for baking, is hardly second rate.

By Mr Samuel Pond — Pond's Seedling, White Gage, Duane's Purple & Corse's Nota Bena, Plums, also Skinless Pears.

By E. M. Richards — "old Catharine" Pears, very large specimens — this old variety is probably of European origin, the name of which was lost — known in the market for many years as the "latten" or "Katren" pear.

For the Committee, E. M. RICHARDS.

EXHIBITION OF FLOWERS.

Messrs Johnson, Sweetser, Hovey, Mason and S. Walker, were the contributors of Dahlias; we shall not give a list of all the varieties which were exhibited, but name such only as we think were in the highest state of perfection.

Mr Johnson's specimens of Cedo Nulli, were the best we have seen of this variety, this season.

Mr Sweetser's Granta was an extra fine flower.

The specimens, by Messrs Hovey, of the King of the Dahlias, Widnall's Venus, Douglass's Criterion, Hermione, Albion and the Beauty of Sheffield, were splendid; Metropolitan Calypso, and Widnall's Apollo, are great beauties; we never saw better specimens or more superb flowers.

Mr Mason's Village Maid, and Dennissi were good specimens.

Two Seedlings, raised by Mr John Richardson of Dorchester, presented by Samuel Walker, possess many of the properties which constituted a good flower; we would not, however, until we have seen further specimens class them with the best, yet we shall hazard little by saying that three fourths of the varieties of Dahlias imported yearly, with long and high sounding names, are not so good. Desdemona, Lady Milton, and Satropa were fine.

Mr S. Sweetser and Messrs Hovey exhibited some choice specimens of the China Aster.

For the Committee,

S. WALKER, *Chairman.*

Saturday, Sept. 10, 1836.

EXHIBITION OF FLOWERS.

Pears, by Mr Manning — An unknown variety, medium size, and bright russet color, the flavor somewhat resembling that of a Melon —

may be the "Poire du Meion" of European Cat. Also, Dearborn's Seedling, a good pear and will probably become a favorite.

By Mr E. M. Richards — Pears, without a name.

Apples, by Mr Vose, President of the Society — Lady Haley's Nonsuch, a fine looking fruit.

By Mr Richards — Lady Haley's Nonsuch, Summer Gilliflower, Early Sweeting, Curtis' Early Striped, Porter, (prematurely ripe), Wait's Early, Benoni, Shropshirevine, Red and Green Sweeting (a baking fruit) Early Harvest, Red Juneating, Early Bough, and the American Summer Pearmain, a fine apple, also, two varieties without names.

From S. E. Coues, Esq. Portsmouth — Specimens of a native variety, much in appearance and taste to the favorite Porter apple, but more seeds.

Plums, from Edward Cruft, Esq. — A basket of Bolmer's Washington Plums, from his garden in Pearl street; the unrivalled beauty of this specimen excited great admiration; they far excelled all others which have been shown on the Society's tables.

By Mr Johnson — Bolmer's Washington, very large and fine, Golden Gage and White, or Prince's Imperial Gage.

By Mr Vose — Bolmer's Washington, very fine.

By Mr Manning — Bolmer's Washington, fine; Brevoort's Purple Washington, handsome, and a great bearer, Grosse Reine Claude, Prince's Imperial Gage and the Byfield Plum, (a native) small, but a beautiful looking fruit, a great bearer and is reproduced from the stone.

By Mr Pond — Magnum Bonum, Prince's Imperial Gage, Pond's Seedling, Bolmer's Washington, Green Gage, Smith's Orleans, and Duane's Purple.

For the Committee,

P. B. HOVEY, Jr.

EXHIBITION OF FLOWERS.

The display of Dahlias today was very brilliant; we have, at times had a greater number of flowers on our table, but on no occasion do we recollect to have seen so many fine specimens. Messrs Hovey and Mr S. Sweetser exhibited some new varieties of great excellence; we noticed ten fine varieties by Mr Sam'l R. Johnson, of Charlestown; and about thirty varieties by Mr W. E. Carter, of Cambridge. The Maid of the Mill and Lady Campbell, in the stand of Mr Sweetser; and Messrs Hoveys' specimens of Hermione, Zurah, Venus and Black Prince were very superior. S. Walker exhibited fifteen varie-

ties; among them the Beauty of Cambridge, also, two specimens of Mr Jno. Richardson's seedling. This flower bids fair to rival all the seedlings produced in this country. The color is not equal to the parent (Widnall's Perfection) but the form and size we think are improved. Another season, and after Mr Richardson has given it a name, we shall be able to put in its proper place, thus far we put it with and call it one of the *number ones*.

For the Committee, S. WALKER, *Chairman*.

Saturday, Sept. 17.

EXHIBITION OF FRUITS.

Pears. From Mr Manning — Surpasse St Germain (Buel and Wilson's Cat.) an excellent pear about the size of the Old St Germain and rich and beautiful in appearance. Julienne, Valee Franche, Summer Rose and Summer Franc Real, — the latter rich and delicious and will rank among the very best summer pears.

From Mr Richards — Grisse Bonne (Cox), Great Mogul and Harvard.

Apples. From Mr French — Dutch Codlin, Garden Royal, Gideon (a native sweet apple) and Porter's, very fine.

From Mr Richards — Orange Seedling (good) and Benoni.

By Mr W. Kenrick, from Dr Ford, of Alna, Me. — the following varieties of apples, — Pomme de Roi, Early Harvest, Lewis' Early, Roxbury Russet, Hinkley Sweeting, Haley Apples.

Several varieties from a source unknown to us, were presented for names, among them was the Porter and Pumpkin Sweeting.

Plums. From Mr Manning — fine specimens of the German Prune, which has the valuable property of hanging on the tree till dry.

From Mr Van Dyne, of Cambridge — White Gage and Smith's Orleans.

From Hovey & Co.— Peaches, cultivated in pots. Also, a specimed of Walker's Long Green Cucumber, measuring twenty inches in length.

Mr Mason, of Charlestown — exhibited a basket of Brugnon Nectarines, the finest of that variety we have ever noticed.

For the Committee, P. B. HOVEY, Jr.

Saturday, Sept. 24, 1836.

The annual exhibition of the Massachusetts Horticultural Society took place on Saturday, 24th inst. and the place selected for the day and the occasion was the Artists' Gallery, a spacious Hall situated in Summer Street. The exhibition of Fruits and of Flowers, &c. con-

sidering the many new and rare varieties, and splendid specimens, which were this day shewn, fully sustained the character which it has continued to acquire, during the former years.

EXHIBITION OF FRUITS.

Fruits were sent for the exhibition by the following gentlemen:—

By Mr Cowan, from the conservatory of Col. Perkins in Brookline, beautiful specimens of Broomfield Nectarines, Murray's do.; Peaches, Noblesse and New-Royal George; Grapes, Black Hamburg, St. Peters, Frankendale, Black Frontignac, Grizly Frontignac, White Syrian or Hamburg, White Chasselas, White Muscat of Alexandria, all remarkably fine and beautiful.

By Jacob Tidd of Roxbury, Grizly Tokay, a bunch weighing 1 pound 5 ounces, and four clusters of Black Hamburg which respectively weighed 2 pounds 1 ounce, 1 pound 15 ounces, 1 pound 13 ounces and 1 pound 10 ounces. Also one very extraordinary bunch of Regner de Nice Grapes which weighed 6 pounds 5 ounces, and five others which respectfully weighed 4 pounds 13 ounces, 3 pounds 7 ounces, 2 pounds 8 ounces, 2 pounds.

By Mr Haggerston from Belmont and the splendid conservatory of J. P. Cushing, Esq., some very extraordinary specimens of Williams' Bon Chretien and a large basket of various fine kinds of Grapes, of very handsome appearance and finely decorated. Also a large pot containing a living vine coiled and loaded with fine ripe clusters of the Black Hamburg, the whole beautifully decorated with flowers.

By Mr Hathorne of Salem, Pears, name unknown, large, very sweet.

By Gen. Josiah Newhall of Lynnfield, Porter Apples, also fine specimens of the favorite and beautiful fruit described in the Pomological Magazine as the *Capiaumont*, and sent hither by Mr Knight, under the same name, but now satisfactorily ascertained to be the Roi de Wurtemburg. Another Pear large and very oblong, without name, but to appearance the Bourgmestre or the kind heretofore so called with us.

By B. V. French, from his estate in Braintree, Pears, name unknown, also varieties of apples, including Dutch Codlin, Monstrous Bell Flower, Gravenstein, and Ruggles. A native fruit, large red and handsome, austere in taste, but fine for cooking a great bearer. Also a fruit received by him as the Mela Carla.

By Jonathan Warren, of Weston, Warren's Seedling Apples, a fruit raised by him, small, red, of fine flavor and a great bearer. Another called the *American Nonpareil*, a new, large, red, beautiful Pear,

the size, shape and color of a large Baldwin, and now ripe, very tender, of a fine, pleasant, acid flavor. This fruit which is highly deserving and a great bearer, originated on the farm of the Rev. Dr Puffer of Berlin, Mass. and the tree first bore fruit in 1828. Also specimens of the Porter.

By Dennis Murphy, from his garden in Roxbury, Chelmsford Pears, otherwise called Mogul Sumner.

By E. Vose, President of the Society, Pears, the Bartlett or Williams' Bon Chretien, Roi de Wurtemberg [Capiaumont?] Napoleon, Lewis, Vert Longue or Mouille Bouche, Andrews, Urbaniste. Peaches, Gross Mignonne.

By Enoch Bartlett, Vice President of the Society, Pears, Capiaumont as heretofore so called, Andrews, Cushing, Sylvanche Verte, Culotte de Swiss, Seckel, Johonnot, Marie Louise, Napoleon; Apples, Hawthorndean, Porter, and a very large variety of a green color called the Mogul.

By George Newhall, Esq. of Dorchester, Porter Apples, two baskets.

By Mr Manning, about seventy varieties of Pears, as follows:— Autumn Superb, Belle Lucrative, Belle et Bonne, Beurre Diel and Colmar, Souverain, the last two kinds Mr M. is confident are identical, the last name we believe is not found on the lists of Flanders; Easter Beurre or Pentecote, Bezi Vaet, Black Pear of Worcester, or Iron Pear, Bleecker's Meadow, Williams' Bon Chretien, Buffum, Capiaumont of Pom. Mag. or Wurtemburg, Catillac, Bezi de Chaumontelle, Cushing, Delices D'Hardenpont, Doyenne Gris, Doyenne Blanc or St Michael, Echassery, Glout Morceau, Sucre Vert, Sylvanche Verte, Henry IV., Jalousie, Louise Bonne, Marie Louise, Napoleon, Verte Longue, Naumkeag, Newtown Virgalieu, Orange d'Hiver, Passe Colmar, Pope's Quaker, Princess D'Orange, Raymond, Rousselet de Rheims, St Ghislain, Verte Longue Panache, Summer Thorn, Styrian, Washington, Wilkinson, Bowdoin, Winter Nelsi, or LaBonne Malinoise, Beurre de Bollwiller, Beurre Bosc, Fulton, Colmar Sabine of the French, Figue de Naples, Remsens, Green Pear of Yair, Thomson's (American,) Beurre Von Marum, Holland Green, Gansel's Bergamotte, Capsheaf, Coffin's Virgalieu, Saunders' Beurre. Also some unnamed kinds. The above kinds of fruit are of the different seasons, of course but few were now in eating, and are therefore for re-examination at some future day. The apples exhibited by Mr Manning were the King of the Pippins, Fall Harvey and Rambour Gros or Franc.

By Mr Richards, Pears, Seckel, Verte Longue; Apples, American Summer Pearmain very fine, Porter.

By William Oliver from his estate in Dorchester, Pears, Broca's Bergamotte, Swan's Egg, St Ghislain, Howard and Seckel.

By J. A. Kenrick; Pears, Seckel, Harvard, Andrews. Apples, Hubbardston Nonsuch, Hempstock and a large handsome fruit without a name.

By Mr Sweetser from his garden at Cambridgeport. Large specimens of the Chelmsford Pear called the Mogul Summer.

By Col. Wilder, Pears, Bartlett or Williams' Bon Chretien, and fair specimens of the Roxbury Russetting of the growth of 1835.

By Joshua Gardner of Dorchester, Seckel Pears, Gravenstein Apples, very fine, monstrous Pippin, and a native sweet apple.

By Gardner Brewer, Roi de Wurtemberg, tree transplanted from the Nursery last spring.

By William Kenrick, Beurre de Bolwiller Pears, &c.

By John Woodbury, Golden Chasselas Grapes.

By J. L. L. F. Warren of Brighton, Porter Apples, Sweetwater Grapes or Chasselas from out of door culture. A Winter Squash the growth of 1835.

By E. Breed of Charlestown, a very large Valparaiso Squash of the oval form, also another variety very large, flat and ribbed at its sides.

By Mr McLellan, a green fleshed Persian Muskmelon. Also a Minorca Muskmelon, both from Oak Wood, the Mansion of William Pratt, Esq. of Watertown.

By Thomas Mason of the Charlestown Vineyard, Sweetwater Grapes, Black Hamburg, and St Peters.

By S. R. Johnson of Charlestown, Sweetwater Grapes, the produce of out of door culture, Black Hamburg and White Frontignac or Muscat.

During the present unusually cold summer, the trees of the peach and the cherry have not borne their wonted and abundant supplies of fruit; the blossoms having been destroyed by the last uncommon winter, yet though thus cut off from our usual supplies, we have the less reason to complain, insomuch that but few of the trees which produced those fruits have been destroyed, and compared with many other sections of our country, even in more southern parallels of latitude, the climate of the country around Boston seems indeed highly favored. The climate of the extensive plains and valleys bordering on the great northern arteries or rivers of our country, seems in some

degree very unfavorable. The cold aqueous vapor which is so copiously exhaled from these rivers by day, descending by night on the hills, rolls downward by its superior density and gravity, resting and condensing on all the low plains and valleys, thus rendering them doubly exposed to the destructive frosts of winter and of summer.—Moreover, the winds, which unobstructed, follow almost invariably the longitudinal course of the valleys of those rivers bring down alternately from higher regions and from high northern latitudes, and from other climes, a degree of cold during winter the most intense and destructive. On the best authority we are assured, that the Pears and particularly the Peach, and the Cherry, have during the last winter suffered partial destruction in the valley of the Connecticut as far south as the country around the city of Hartford, and even still further downwards and towards the sea. Even far below the city of Albany on the Hudson or North River, the Cherry tree particularly, and many other trees which are equally as hardy, and especially during all the period of their younger years, are, we are credibly assured, extremely liable to suffer death during winter from the same destructive climate and causes. The fine exhibition of fruits and the splendid varieties of flowers and other productions which was witnessed this day affords new evidence that we have abundant cause of gratitude.

For the Committee,

WILLIAM KENRICK.

EXHIBITION OF FLOWERS.

This day the Massachusetts Horticultural Society held their Annual meeting, at the Artists' Gallery, Summer-street, and notwithstanding the season has been unusually cold and unprosperous for the cultivation of flowers, yet, by the generous contributions of our friends, and the aid and assistance given by many of our members, the committee were enabled to decorate their exhibition rooms with much that was choice and rare. The flowers generally, particularly the Dahlias, were in the highest state of perfection; and what was lacking in *quantity*, compared with former seasons, was in a great measure, made up in *quality*. The contribution of J. P. Cushing, Esq. of Watertown, by his gardener Mr David Haggerston, was magnificent. The pot of Black Hamburg Grapes richly decorated with Dahlias and other flowers, thus blending and uniting the handmaids of Flora and Pomona, was happily conceived and finely executed by Mr Haggerston. The specimens of Combretum purpureum, Crinum

amabella, Phaseolus corocolla, Nerium splendens, and Amaryllis Belladonna were very splendid.

Thomas Lee, Esq. presented three vases of cut flowers, some of which were fine specimens.

A fine bouquet from William Pratt, Esq. of Watertown.

Handsome bouquets of cut flowers from the garden of the President of the Society, and from the garden of the Orator of the day.

By Col. Marshal P. Wilder of Dorchester, twentysix specimens of seedling Pansies of great beauty. Also, Gloxinia maculata and other greenhouse plants, and eightysix specimens of the Dahlia, among which we noticed a plant of Angelina transferred into a pot with sixteen fine flowers growing thereon; this specimen made a very imposing appearance. We also noticed in Mr Wilder's collection, Widnall's Rising Sun, Bride of Abydos, Jupiter, Young's Black Ajax, Cross's yellow Hermione, Inwood's Ariel, Douglass's Glory, Erecta, Wells' Paragon, Young's fine Crimson and Dennissi.

By Mr Samuel R. Johnson of Charlestown, a fine collection of Dahlias, including extra fine flowers of Cedi Nulli, Guido, and Lady Fordwich.

From the garden of Mr S. Sweetser of Cambridgeport, bouquets and one hundred and three specimens of the Dahlias, containing most of the choice varieties. We were much pleased with his specimens of Granta, Springfield Rival, Queen of Dahlias, Duke of Devonshire and Exeter.

Messrs Hovey & Co. presented several splendid bouquets and sixtyeight fine specimens of Dahlias. In their collection we noticed Hermione, Zarah, Bride of Abydos, Urania, Widnall's Venus, do. Paris, and beauty of Camberwell.

By Mr William E. Carter, of the Botanic Garden, Cambridge, several bouquets and one hundred and five specimens of the Dahlia. Mr Carter shew his Dahlias on a new plan, they met the eye at once and with great force. We noticed fine specimens of Satropa, Granta, Miss Pelham, Ophelia, and the Dutchess of Bedford.

By Mr Mason of Charlestown, eightysix specimens of Dahlias and several fine bouquets. Mr Mason shew two seedling Dahlias together with some fine specimens of Granta, Village Maid, Dennissi and Transcendent.

Messrs John Richardson of Dorchester, William and John A. Kenrick of Newton, William Wales of Dorchester, and S. Walker of Roxbury, each presented cut flowers, bouquets, &c.

For the Committee, S. WALKER, *Chairman.*

NOTE.—A box containing some fine Seedling Dahlias, among which the Beauty of Portland and Miss Neil appeared most beautiful, China Asters, double, from single ones last year, and Pansies were received from Robert Milne, Gardener to M. P. Sawyer, Esq. of Portland, Me. but too late for exhibition. We regret that our Portland friend could not have forwarded his flowers in season to have taken a stand with some of Boston cultivation; they might not have suffered in comparison.

ART. X.—*Gardeners' Work for October.*

Do not suspend your weeding operations too early in the season, but give a general hoeing and weeding to all your crops and carry the weeds out of the garden. Towards the end of this month, if the stalks of asparagus turn yellow cut them close to the earth; clear the beds and alleys from weeds, and carry them together with the stalks off the ground. It will then be well to cover the beds of asparagus with manure, and nothing is better and more suitable for them than the dung of old hotbeds; but if that is not to be had, well rotted stable manure will answer; let it be laid equally over the beds one or two inches deep.

The seedling asparagus sown last spring should now, likewise, have a slight dressing. The bed should be cleared from weeds and then spread an inch or two in depth of dry rotten dung over it to defend the crown of the plants from frost.

Secure potatoes and other roots. It was remarked by the editor of the Albany Cultivator, and the opinion has been confirmed by others acquainted with the subject, that it were better that the sun never should shine on potatoes, and that they should be housed with all the dirt that adheres to them—that it is beneficial to add more dirt in the bin or cask to exclude external air as much as possible. And that their surface should be kept moist, and the atmosphere which surrounds them as little above the freezing point as possible.

Potatoes may be kept during winter in a cellar free from frost, or in pits or caves in the field. In the latter case they must be so situated on a dry knoll, or the sides of a hill, as to be secured from the possibility of the pits being pervaded by water; and they must be so covered, first with straw, and then with loam as to prevent the

intrusion of frost. They may likewise be placed in barrels, casks or boxes, and if packed in sand or the loam of the field in which they grew, they will be preserved better than in any other situation. If they are exposed to the sun and air till the upper side acquires a green color, they become poisonous.

With regard to preserving Beets and other roots, Mr M'Mahon gives the following directions:

Previous to the commencement of severe frost, you should take up with as little injury as possible, the roots of your turnips, carrots, parsnips, beets, salsify, scorzonera, Hamburg or large rooted parsley, Jerusalem artichokes, turnip rooted celery, and a sufficiency of horse radish for winter consumption; cut off all their tops and expose the roots for a few hours till sufficiently dry. On the surface of a very dry spot of ground, in a well sheltered situation, lay a stratum of sand two inches thick, and on this a layer of roots of either sort covering them with another layer of sand (the drier the better,) and so continue layer about of sand and roots till all are laid in, giving the whole on every side, a roof-like slope; then cover the heap or ridge all over with about two inches of sand, over which lay a coat of drawn straw, up and down as if thatching a house, in order to carry off wet, and prevent its entering the roots; then dig a wide trench round the heap, and cover the straw with the earth so dug up, to a depth sufficient to preserve the roots effectually from frost. An opening may be made on the south side of this heap, and completely covered with bundles of straw, so as to have access to the roots at all times when wanted for sale or use.

Some people place straw or hay, between the layers of roots and immediately on the top of them; but this is not approved of because the straw or hay will become damp and mouldy, and occasion the roots to rot, while the sand would preserve them sweet and sound.—Roots preserved as above are less apt to become stringy, tough, and to vegetate early in the spring than those kept in cellars.

Art. XI.—*Miscellaneous Articles.*

Gathering and Preserving Fruit.—Great quantities of winter fruits are raised in the vicinity of Boston, and put up for winter use, for the market and for exportation. The following is the mode almost

universally adopted by the most experienced. And by this mode the apples under favorable circumstances are frequently preserved in a sound state, or not one in fifty defective, for a period of seven or eight months. The fruit is suffered to hang on the tree to as late a period as possible in October, or till hard frosts have loosened the stalks, and they are in danger of being blown down by high winds; such as have already fallen and carefully gathered and inspected, and the best are put up for winter use. They are carefully gathered from the tree by hand, and as carefully put into baskets. New, light, well seasoned flour barrels from the bakeries are usually preferred; the barrels being quite filled are gently shaken, and the head is pressed down to its place and secured. It is observed that this pressure never causes them to rot next the head, and is necessary, as they are never allowed to rattle in moving. No soft straw or shavings are admitted at the ends, it causes mustiness and decay. They are next carefully placed in wagons and removed on the bilge, and laid in courses in a cool airy situation, on the north side of a building, near the cellar, protected by a covering on the top of boards, so placed as to defend them from the sun and rain, while the air is not excluded at the sides. A chill does not injure them; it is of no disservice, but when extreme cold weather comes on, and they are in imminent danger of being frozen, whether by night or by day, they are carefully rolled into a cool airy dry cellar, with an opening on the north side that the cold air may have free access — they are laid in tiers, and the cellar is in due time closed and rendered secure from frost. The barrels are never tumbled or placed on the head. Apples keep best when grown in dry seasons, and on dry soils. If fruit is gathered late, and according to the above directions, repacking is unnecessary; it is even ruinous, and should on no account be practised till the barrel is opened for use. It has been fully tried.

Pitting Turnips.—As the turnip harvest is approaching, we take the liberty of suggesting to those who cultivate the Swedes, our method for pitting them for winter. The pits are limited to two feet in width, and of an indefinite length, and are dug in a dry situation, seldom more than two feet deep. When the pit or hole is filled with roots as high as the surface of the ground, the turnips are laid by hand, the tops cut and sloping to the centre, until they terminate in a ridge which is generally about two feet above the ground. The whole are then covered with straw and then with earth. The important

point follows: the crown of the ridge is then pierced with an iron bar, at intervals of a yard, and the earth pressed out so as to leave an entire aperture into the turnips, and into each of these apertures a wisp of straw is loosely inserted. The roots will peel unless the rarified air is permitted to escape, the turnips are apt to rot. The openings permit its escape without danger of the frost's doing injury.—With this precaution we have not lost one bushel in a thousand. The same course would no doubt be beneficial in preserving *mangel wurtzel.—Goodell's Farmer.*

Horticultural Institution in Halifax.—In the Novascotian of Thursday last, an able report of the sub-committee upon the expediency of founding a public garden in Halifax, has made its appearance, but we fear it is too elaborate to meet the present views of the horticulturist in this young country; we therefore only notice such part of it as appears to us to come within the compass of the means and intelligence we at present possess, to put so praiseworthy an object into immediate and effectual operation. Alluding to the site most suitable for a public garden and a comparative outlay that would be necessary, the Report states —

"That an opinion, nearly universal, prevails, that the best site which could be selected, is some portion of the vacant space now forming part of the common and government grounds in the rear of Fort Masse, situate between the Spring Gardens and the northern wall of the Hon. Enos Collins. It is of large extent. The soil is fit for cultivation. It is finely varied in its surface. It has the benefit of a flowing stream and affords opportunity for cultivating the aquatic plants and grasses. As the title of part of it is vested in the town already, to appropriate it for this new purpose an act of the legislature only is required. The consent of the Crown may be expected as a matter of course. The site is referred to only by way of suggestion and the subject, of course, before any definite plan is arranged, will be fully discussed and considered at a public meeting of the Society.

"The Committee are not prepared to recommend the cultivation of the whole of it; in the first instance their operations would be confined to the erection of a picket fence, the making of roads, the planting of trees and shrubs, the cultivation of two or three acres only, for the reception of plants, especially such as may be presented to the Society, and are valuable by reason of their novelty. The

improvement may be conducted on economical terms by the sale of the stones and the employment of cheap labor.

"An outlay of not more than £300 or £400 would be required in the first instance; for the Committee are not prepared to embark in the enterprise to any great extent, until the favorable disposition of the community has been tested by partial success. The botanical collection could easily be obtained, by conducting exchanges with the celebrated Horticultural Societies established in Europe and America; for as these are supported purely from a love of science, they are animated with the generous desire of extending the benefits of their researches to all who seek for them. The Committee would derive essential assistance in this branch of their exertions, from the practical knowledge of the Botany of the Province, in possession of Mr Titus Smith. They have been already aided by a plan of the public grounds alluded to, completed by Mr James Irons. They expect to receive the necessary funds from donations and perhaps by a moderate grant from the Legislature — for they wish to conduct it so that it may promote the prosperity of the Province, and be in fact an enterprise supported by the combined intelligence and public spirit of the country. The annual expence of supporting it would be contributed by subscriptions, as in the great cities of the Old World. — This sum would not be extravagant, as it would be limited to the support of a Garden, and the expence of cultivating a small extent of ground. No building would be required, except a toolhouse and rooms for the residence of the Gardener and his family, which could be erected, after those elegant and economical models of cottages so fully described in Loudon's Encyclopædias of Cottage Architecture and Gardening, both of which are now to be found in the Halifax Library.

"The society aided by such a Garden, would very soon be able, it is hoped, to improve the cultivation of fruits and vegetables. The same spirit which guides their labors in one branch, would exercise a happy and auspicious influence upon the Provincial agriculture; and while they thus endeavor to embellish the capital, and to add to its intellectual resources, they humbly hope to be instrumental in promoting those other objects which are the most affluent sources of national prosperity and happiness."— *Acadian Recorder of Sept.* 10.